#### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

- 1. (canceled)
- 2. (original) A compound of the Formula II:

wherein:

X is  $C_{1-10}$  alkylene or  $C_{2-10}$  alkenylene;

R<sub>A1</sub> and R<sub>B1</sub> are each independently selected from the group consisting of:

hydrogen,

halogen,

alkyl,

alkenyl,

alkoxy,

alkylthio, and

 $-N(R_9)_2$ ;

or when taken together,  $R_{A1}$  and  $R_{B1}$  form a fused aryl ring or heteroaryl ring containing one heteroatom selected from the group consisting of N and S, wherein the aryl or heteroaryl ring is unsubstituted or substituted by one or more R groups, or substituted by one  $R_3$  group, or substituted by one  $R_3$  group and one R group;

or when taken together,  $R_{A1}$  and  $R_{B1}$  form a fused 5 to 7 membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or substituted by one or more R groups;

R is selected from the group consisting of:

halogen,

```
hydroxy,
                 alkyl,
                 alkenyl,
                 haloalkyl,
                 alkoxy,
                 alkylthio, and
                 -N(R_9)_2;
        R_1 is selected from the group consisting of:
                 -R_4
                 -X'-R_4,
                -X'-Y-R<sub>4</sub>,
                 -X'-Y-X'-Y-R<sub>4</sub>,
                 -X'-R_5
                -X"-O-NR_{1a}-Y'-R_{1b}, and
                 -X"-O-N=C(R_1')(R_1");
        R<sub>2</sub>, R", R<sub>1a</sub>, R<sub>1b</sub>, R<sub>1</sub>', and R<sub>1</sub>" are independently selected from the group consisting of:
                 hydrogen,
                 alkyl,
                 alkenyl,
                 aryl,
                 arylalkylenyl,
                 heteroaryl,
                 heteroarylalkylenyl,
                 heterocyclyl,
                 heterocyclylalkylenyl, and
                 alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or
heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting
                         hydroxy,
                         alkyl,
                         haloalkyl,
```

of:

hydroxyalkyl,

alkoxy,

amino,

dialkylamino,

 $-S(O)_{0-2}$ -alkyl,

 $-S(O)_{0-2}$ -aryl,

-NH-S(O)2-alkyl,

-NH-S(O)<sub>2</sub>-aryl,

haloalkoxy,

halogen,

cyano,

nitro,

aryl,

heteroaryl,

heterocyclyl,

aryloxy,

arylalkyleneoxy,

-C(O)-O-alkyl,

 $-C(O)-N(R_8)_2$ ,

 $-N(R_8)-C(O)$ -alkyl,

-O-(CO)-alkyl, and

-C(O)-alkyl;

or R<sub>2</sub> and R" and/or R<sub>1</sub>' and R<sub>1</sub>" can join together to form a ring system selected from the group consisting of:

 $= \begin{pmatrix} R_{11} \\ A' \end{pmatrix}$ 

wherein the total number of atoms in the ring is 4 to 9, and

=  $\begin{pmatrix}
R_{11} \\
R_{12}
\end{pmatrix}$   $\begin{pmatrix}
R_{c} \\
R_{d}
\end{pmatrix}$ 

R<sub>d</sub> wherein the total number of atoms in the ring is 4 to 9;

or R<sub>1a</sub> and R<sub>1b</sub> together with the nitrogen atom and Y' to which they are bonded can join to form a ring selected from the group consisting of:

$$\begin{array}{ccc} -N - C(R_6) & -N - S(O)_2 \\ \begin{pmatrix} & & \\ & R_7 \end{pmatrix} & \text{and} & \begin{pmatrix} & & \\ & & \\ & & & \end{pmatrix};$$

R<sub>3</sub> is selected from the group consisting of:

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated by arylene, heteroarylene or heterocyclylene and optionally interrupted by one or more -O- groups;

X" is selected from the group consisting of –CH(R<sub>13</sub>)-alkylene- and –CH(R<sub>13</sub>)-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$$-S(O)_{0-2}$$
-,

$$-S(O)_2-N(R_8)-$$
,

$$-C(R_6)-,$$

$$-C(R_6)-O-$$

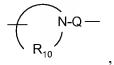
$$-O-C(R_6)-$$
,

$$-N(R_8)-Q-,$$

$$-C(R_6)-N(R_8)-,$$

$$-O-C(R_6)-N(R_8)-$$

$$-C(R_6)-N(OR_9)-,$$



$$-N-C(R_{6})-N-W R_{7}$$
,
 $-N-R_{7}-N-Q R_{7}$ 
,
 $-V-N$ 
, and
 $R_{10}$ 
,  $R_{10}$ 

Y' is selected from the group consisting of:

- a bond,
- -C(O)-,
- -C(S)-,
- $-S(O)_2-$ ,
- $-S(O)_2-N(R_8)-,$

$$-S(O)_2 - N R_{10}$$

- -C(O)-O-,
- -C(O)-N(R<sub>8</sub>)-,
- $-C(S)-N(R_8)-,$
- $-C(O)-N(R_8)-S(O)_2-$ ,
- -C(O)-N(R<sub>8</sub>)-C(O)-,
- $-C(S)-N(R_8)-C(O)-,$

$$-C(O) - N$$
 $R_{10}$ 

- -C(O)-C(O)-,
- -C(O)-C(O)-O-, and
- $-C(=NH)-N(R_8)-;$

Z is a bond or -O-;

 $R_c$  and  $R_d$  are independently selected from the group consisting of hydrogen, halogen, hydroxy, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and  $-N(R_9)_2$ ; or  $R_c$  and  $R_d$  can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

R<sub>4</sub> is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, alkylarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R<sub>5</sub> is selected from the group consisting of:

$$-N - C(R_{6}) - N - S(O)_{2} - V - N - (CH_{2})_{a} A - (CH_{2})_{b} A, and$$

$$-N - C(R_{6}) - N - C(R_{6}) - N - (CH_{2})_{b} A - (CH_{2})_{$$

 $R_6$  is selected from the group consisting of =O and =S;

R<sub>7</sub> is C<sub>2-7</sub> alkylene;

 $R_8$  is selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{2-10}$  alkenyl,  $C_{1-10}$  alkylenyl, and aryl- $C_{1-10}$  alkylenyl;

R<sub>9</sub> is selected from the group consisting of hydrogen and alkyl;

 $R_{10}$  is  $C_{3-8}$  alkylene;

 $R_{11}$  is  $C_{1-6}$  alkylene or  $C_{2-6}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

 $R_{12}$  is selected from the group consisting of a bond,  $C_{1-5}$  alkylene, and  $C_{2-5}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R<sub>13</sub> is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups;

A is selected from the group consisting of  $-CH_2$ -, -O-, -C(O)-,  $-S(O)_{0-2}$ -, and  $-N(R_4)$ -;

A' is selected from the group consisting of -O-,  $-S(O)_{0-2}$ -,  $-N(-Q-R_4)$ -, and  $-CH_2$ -;

Q is selected from the group consisting of a bond,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-S(O)_2$ -,  $-C(R_6)$ -N(R<sub>8</sub>)-W-,  $-S(O)_2$ -N(R<sub>8</sub>)-,  $-C(R_6)$ -O-, and  $-C(R_6)$ -N(OR<sub>9</sub>)-;

V is selected from the group consisting of  $-C(R_6)$ -,  $-O-C(R_6)$ -,  $-N(R_8)-C(R_6)$ -, and  $-S(O)_2$ -;

W is selected from the group consisting of a bond, -C(O)-, and  $-S(O)_2$ -; and a and b are independently integers from 1 to 6 with the proviso that a + b is  $\leq 7$ ; or a pharmaceutically acceptable salt thereof.

- 3. (canceled)
- 4. (original) A compound of the Formula IIIa:

$$(R)_{n} \xrightarrow{NH_{2}} N \times O - N \times R'$$

$$(R_{3})_{m} \times R_{2}$$

IIIa

wherein:

X is  $C_{1-10}$  alkylene or  $C_{2-10}$  alkenylene;

R is selected from the group consisting of:

halogen,

hydroxy,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

 $-N(R_9)_2;$ 

 $R_1$  is selected from the group consisting of:

```
-R_4
                 -X'-R<sub>4</sub>,
                 -X'-Y-R_4,
                 -X'-Y-X'-Y-R_4
                 -X'-R_5,
                 -X"-O-NR<sub>1a</sub>-Y'-R<sub>1b</sub>, and
                 -X''-O-N=C(R_1')(R_1'');
        R<sub>2</sub>, R", R<sub>1a</sub>, R<sub>1b</sub>, R<sub>1</sub>', and R<sub>1</sub>" are independently selected from the group consisting of:
                 hydrogen,
                 alkyl,
                 alkenyl,
                 aryl,
                 arylalkylenyl,
                 heteroaryl,
                 heteroarylalkylenyl,
                 heterocyclyl,
                 heterocyclylalkylenyl, and
                 alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or
heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting
of:
                          hydroxy,
                          alkyl,
                          haloalkyl,
                          hydroxyalkyl,
                          alkoxy,
                          amino,
                          dialkylamino,
                          -S(O)_{0-2}-alkyl,
                          -S(O)_{0-2}-aryl,
                          -NH-S(O)<sub>2</sub>-alkyl,
```

-NH- $S(O)_2$ -aryl,

haloalkoxy,

halogen,

cyano,

nitro,

aryl,

heteroaryl,

heterocyclyl,

aryloxy,

arylalkyleneoxy,

-C(O)-O-alkyl,

 $-C(O)-N(R_8)_2$ ,

 $-N(R_8)-C(O)$ -alkyl,

-O-(CO)-alkyl, and

-C(O)-alkyl;

or R<sub>2</sub> and R" and/or R<sub>1</sub>' and R<sub>1</sub>" can join together to form a ring system selected from the group consisting of:

$$= \begin{pmatrix} R_{11} \\ A' \end{pmatrix}$$

wherein the total number of atoms in the ring is 4 to 9, and

$$=$$
 $R_{11}$ 
 $R_{c}$ 
 $R_{d}$ 

wherein the total number of atoms in the ring is 4 to 9;

or  $R_{1a}$  and  $R_{1b}$  together with the nitrogen atom and Y' to which they are bonded can join to form a ring selected from the group consisting of:

$$-N-C(R_6) \qquad -N-S(O)_2$$

$$R_7 \qquad \text{and} \qquad R_7'$$

R<sub>3</sub> is selected from the group consisting of:

 $-Z-R_4$ ,

 $-Z-X'-R_4$ ,

-Z-X'-Y-R<sub>4</sub>,

$$-Z-X'-Y-X'-Y-R_4$$
, and  $-Z-X'-R_5$ ;

n is an integer from 0 to 4;

m is 0 or 1; with the proviso that when m is 1, then n is 0 or 1;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated by arylene, heteroarylene or heterocyclylene and optionally interrupted by one or more -O- groups;

X" is selected from the group consisting of  $-CH(R_{13})$ -alkylene- and  $-CH(R_{13})$ -alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$$-S(O)_{0-2}$$
-,

$$-S(O)_2-N(R_8)-,$$

$$-C(R_6)-$$
,

$$-C(R_6)-O-,$$

$$-O-C(R_6)-$$
,

$$-N(R_8)-Q_{-}$$

$$-C(R_6)-N(R_8)-,$$

$$-O-C(R_6)-N(R_8)-$$
,

$$-C(R_6)-N(OR_9)-$$

$$\left(\begin{array}{c} N-Q- \\ R_{10} \end{array}\right)$$

$$R_7$$

$$-N-R_7-N-Q-$$

$$-V-N$$
 $R_{10}$ , and
$$R_{10}$$
 $R_{10}$ 

Y' is selected from the group consisting of:

- a bond,
- -C(O)-,
- -C(S)-,
- $-S(O)_2-$ ,
- $-S(O)_2-N(R_8)-,$

$$-S(O)_2 - N R_{10}$$

- -C(O)-O-,
- $-C(O)-N(R_8)-,$
- $-C(S)-N(R_8)-,$
- $-C(O)-N(R_8)-S(O)_2-$ ,
- $-C(O)-N(R_8)-C(O)-$
- $-C(S)-N(R_8)-C(O)-,$

$$-C(0) - N R_{10}$$

- -C(O)-C(O)-
- -C(O)-C(O)-O-, and
- $-C(=NH)-N(R_8)-;$

Z is a bond or -O-;

 $R_c$  and  $R_d$  are independently selected from the group consisting of hydrogen, halogen, hydroxy, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and  $-N(R_9)_2$ ; or  $R_c$  and  $R_d$  can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

R<sub>4</sub> is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylaylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R<sub>5</sub> is selected from the group consisting of:

$$-N - C(R_6) - N - S(O)_2 - V - N - (CH_2)_a A - (CH_2)_b A A$$

 $R_6$  is selected from the group consisting of =O and =S;

 $R_7$  is  $C_{2-7}$  alkylene;

 $R_8$  is selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{2-10}$  alkenyl,  $C_{1-10}$  alkylenyl, and aryl- $C_{1-10}$  alkylenyl;

R<sub>9</sub> is selected from the group consisting of hydrogen and alkyl;

 $R_{10}$  is  $C_{3-8}$  alkylene;

 $R_{11}$  is  $C_{1-6}$  alkylene or  $C_{2-6}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

 $R_{12}$  is selected from the group consisting of a bond,  $C_{1-5}$  alkylene, and  $C_{2-5}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R<sub>13</sub> is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups;

A is selected from the group consisting of  $-CH_2$ -, -O-, -C(O)-,  $-S(O)_{0-2}$ -, and  $-N(R_4)$ -;

A' is selected from the group consisting of  $-O_{-}$ ,  $-S(O)_{0-2-}$ ,  $-N(-Q-R_4)_{-}$ , and  $-CH_{2-}$ ;

Q is selected from the group consisting of a bond,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-S(O)_2$ -,  $-C(R_6)$ -N(R<sub>8</sub>)-W-,  $-S(O)_2$ -N(R<sub>8</sub>)-,  $-C(R_6)$ -O-, and  $-C(R_6)$ -N(OR<sub>9</sub>)-;

V is selected from the group consisting of -C(R<sub>6</sub>)-, -O-C(R<sub>6</sub>)-, -N(R<sub>8</sub>)-C(R<sub>6</sub>)-, and -S(O)<sub>2</sub>-;

W is selected from the group consisting of a bond, -C(O)-, and  $-S(O)_2$ -; and a and b are independently integers from 1 to 6 with the proviso that a + b is  $\leq 7$ ; or a pharmaceutically acceptable salt thereof.

# 5. (original) A compound of the Formula IIIa:

$$(R)_{n} \xrightarrow{NH_{2}} N \xrightarrow{N} X \xrightarrow{O-N} R''$$

$$(R_{3})_{m} R_{1} \xrightarrow{R_{2}} R_{2}$$

IIIa

wherein:

X is  $C_{1-10}$  alkylene or  $C_{2-10}$  alkenylene;

R is selected from the group consisting of:

halogen,

hydroxy,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

 $-N(R_9)_2$ ;

 $R_1$  is selected from the group consisting of:

 $-R_4$ ,

-X'-R<sub>4</sub>,

 $-X'-Y-R_4$ ,

 $-X'-Y-X'-Y-R_4$ ,

 $-X'-R_5$ ,

-X"-O-NH-Y'-R<sub>1</sub>', and

```
-X"-O-N=C(R_1')(R_1");
        R<sub>2</sub>, R", R<sub>1</sub>', and R<sub>1</sub>" are independently selected from the group consisting of:
                hydrogen,
                alkyl,
                alkenyl,
                aryl,
                arylalkylenyl,
                heteroaryl,
                heteroarylalkylenyl,
                heterocyclyl,
                heterocyclylalkylenyl, and
                alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or
heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting
of:
                        hydroxy,
                        alkyl,
                        haloalkyl,
                        hydroxyalkyl,
                        alkoxy,
                        dialkylamino,
                        -S(O)_{0-2}-alkyl,
                        -S(O)_{0-2}-aryl,
                        -NH-S(O)<sub>2</sub>-alkyl,
                        -NH-S(O)_2-aryl,
                        haloalkoxy,
                        halogen,
                        cyano,
                        nitro,
```

aryl,

heteroaryl,

heterocyclyl,

aryloxy, arylalkyleneoxy, -C(O)-O-alkyl, -C(O)-N(R<sub>8</sub>)<sub>2</sub>, -N(R<sub>8</sub>)-C(O)-alkyl, -O-(CO)-alkyl, and -C(O)-alkyl;

or R<sub>2</sub> and R" and/or R<sub>1</sub>' and R<sub>1</sub>" can join together to form a ring system selected from the group consisting of:

$$= \begin{pmatrix} R_{11} \\ A' \\ R_{11} \end{pmatrix}$$

wherein the total number of atoms in the ring is 4 to 9, and

$$= \begin{pmatrix} R_{11} \\ R_{12} \end{pmatrix} \begin{pmatrix} R_c \\ R_d \end{pmatrix}$$

wherein the total number of atoms in the ring is 4 to 9;

R<sub>3</sub> is selected from the group consisting of:

 $-Z-R_4$ 

 $-Z-X'-R_4$ 

 $-Z-X'-Y-R_4$ 

-Z-X'-Y-X'-Y-R<sub>4</sub>, and

 $-Z-X'-R_5$ ;

n is an integer from 0 to 4;

m is 0 or 1; with the proviso that when m is 1, then n is 0 or 1;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated by arylene, heteroarylene or heterocyclylene and optionally interrupted by one or more -O- groups;

X" is  $-CH(R_{13})$ -alkylene- or  $-CH(R_{13})$ -alkenylene-;

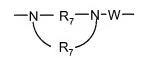
Y is selected from the group consisting of:

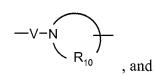
 $-S(O)_{0-2}$ -,

 $-S(O)_2-N(R_8)-$ ,

- $-C(R_6)-,$
- $-C(R_6)-O-,$
- $-O-C(R_6)-$ ,
- -O-C(O)-O-,
- $-N(R_8)-Q-,$
- $-C(R_6)-N(R_8)-,$
- $-O-C(R_6)-N(R_8)-,$
- $-C(R_6)-N(OR_9)-,$

 $-N-C(R_6)-N-W-$ 





-  $R_{10}$   $N-C(R_6)-N$   $R_{10}$ 

Y' is selected from the group consisting of:

- a bond,
- -C(O)-,
- -C(S)-,
- $-S(O)_2-$ ,
- $-S(O)_2-N(R_8)-,$

$$-S(O)_2 - N R_{10}$$

-C(O)-O-,

$$-C(O)-N(R_8)-S(O)_2-$$

$$-C(O)-N(R_8)-C(O)-,$$

$$-C(S)-N(R_8)-C(O)-,$$

$$-C(O) - N$$
 $R_{10}$ 

-C(O)-C(O)-

-C(O)-C(O)-O-, and

 $-C(=NH)-N(R_8)-;$ 

Z is a bond or -O-;

 $R_c$  and  $R_d$  are independently selected from the group consisting of hydrogen, halogen, hydroxy, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and  $-N(R_9)_2$ ; or  $R_c$  and  $R_d$  can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

R<sub>4</sub> is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R<sub>5</sub> is selected from the group consisting of:

$$-N - C(R_{6}) - N - S(O)_{2} - V - N - (CH_{2})_{a} A + R_{10} - (CH_{2})_{b} A + A - (CH_{$$

 $R_6$  is selected from the group consisting of =O and =S;

 $R_7$  is  $C_{2-7}$  alkylene;

 $R_8$  is selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{2-10}$  alkenyl,  $C_{1-10}$  alkoxy- $C_{1-10}$  alkylenyl, and aryl- $C_{1-10}$  alkylenyl;

R<sub>9</sub> is selected from the group consisting of hydrogen and alkyl;

 $R_{10}$  is  $C_{3-8}$  alkylene;

 $R_{11}$  is  $C_{1-6}$  alkylene or  $C_{2-6}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

 $R_{12}$  is selected from the group consisting of a bond,  $C_{1-5}$  alkylene, and  $C_{2-5}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R<sub>13</sub> is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups;

A is selected from the group consisting of  $-CH_2$ -, -O-, -C(O)-,  $-S(O)_{0-2}$ -, and  $-N(R_4)$ -;

A' is selected from the group consisting of -O-, -S(O) $_{0-2}$ -, -N(-Q-R<sub>4</sub>)-, and -CH<sub>2</sub>-;

Q is selected from the group consisting of a bond,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-S(O)_2$ -,  $-C(R_6)$ - $N(R_8)$ -W-,  $-S(O)_2$ - $N(R_8)$ -,  $-C(R_6)$ -O-, and  $-C(R_6)$ - $N(OR_9)$ -;

V is selected from the group consisting of  $-C(R_6)$ -,  $-O-C(R_6)$ -,  $-N(R_8)-C(R_6)$ -, and  $-S(O)_2$ -;

W is selected from the group consisting of a bond, -C(O)-, and  $-S(O)_2$ -; and a and b are independently integers from 1 to 6 with the proviso that a + b is  $\leq 7$ ; or a pharmaceutically acceptable salt thereof.

## 6. (canceled)

7. (currently amended) The compound of claim 2 wherein the A-compound is of the Formula IVa:

IVa

```
wherein:
```

```
X is C<sub>1-10</sub> alkylene or C<sub>2-10</sub> alkenylene;
R is selected from the group consisting of:
halogen,
hydroxy,
alkyl,
```

alkenyl, haloalkyl,

alkoxy,

alkylthio, and

 $-N(R_9)_2$ ;

n is an integer from 0 to 4;

R<sub>1</sub> is selected from the group consisting of:

 $-R_4$ ,

-X'-R<sub>4</sub>,

-X'-Y-R<sub>4</sub>,

-X'-Y-X'-Y-R<sub>4</sub>,

 $-X'-R_5$ ,

-X"-O-NR<sub>1a</sub>-Y'-R<sub>1b</sub>, and

 $-X"-O-N=C(R_1')(R_1");$ 

R<sub>2</sub>, R", R<sub>1a</sub>, R<sub>1b</sub>, R<sub>1</sub>', and R<sub>1</sub>" are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

arylalkylenyl,

heteroaryl,

heteroarylalkylenyl,

heterocyclyl,

heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

```
hydroxy,
alkyl,
haloalkyl,
hydroxyalkyl,
alkoxy,
amino,
dialkylamino,
-S(O)_{0-2}-alkyl,
-S(O)_{0-2}-aryl,
-NH-S(O)<sub>2</sub>-alkyl,
-NH-S(O)_2-aryl,
haloalkoxy,
halogen,
cyano,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
-C(O)-N(R_8)_2,
-N(R_8)-C(O)-alkyl,
-O-(CO)-alkyl, and
-C(O)-alkyl;
```

or R<sub>2</sub> and R" and/or R<sub>1</sub>' and R<sub>1</sub>" can join together to form a ring system selected from the group consisting of:

$$R_{11}$$
 wherein the total number of atoms in the ring is 4 to 9, and  $R_{12}$   $R_{d}$  wherein the total number of atoms in the ring is 4 to 9;

or  $R_{1a}$  and  $R_{1b}$  together with the nitrogen atom and Y' to which they are bonded can join to form a ring selected from the group consisting of:

$$-N-C(R_6) \qquad -N-S(O)_2$$

$$\begin{pmatrix} & & & \\$$

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated by arylene, heteroarylene or heterocyclylene and optionally interrupted by one or more -O- groups;

X'' is selected from the group consisting of  $-CH(R_{13})$ -alkylene- and  $-CH(R_{13})$ -alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$$-N-C(R_6)-N-W R_7$$
,
 $-N-R_7-N-Q R_7$ 
,
 $-V-N$ 
, and
 $-V-N$ 
 $R_{10}$ 
,  $R_{10}$ 

Y' is selected from the group consisting of:

- a bond,
- -C(O)-,
- -C(S)-,
- $-S(O)_2-,$
- $-S(O)_2-N(R_8)-,$

$$- S(O)_2 - N R_{10}$$

- -C(O)-O-,
- -C(O)-N(R<sub>8</sub>)-,
- $-C(S)-N(R_8)-,$
- -C(O)-N(R<sub>8</sub>)-S(O)<sub>2</sub>-,
- -C(O)-N(R<sub>8</sub>)-C(O)-,
- $-C(S)-N(R_8)-C(O)-,$

$$-C(O) = N \longrightarrow R_{10}$$

- -C(O)-C(O)-,
- -C(O)-C(O)-O-, and
- $-C(=NH)-N(R_8)-;$

 $R_c$  and  $R_d$  are independently selected from the group consisting of hydrogen, halogen, hydroxy, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and  $-N(R_9)_2$ ; or  $R_c$  and  $R_d$  can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

R<sub>4</sub> is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, alkylarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, heteroarylalkylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R<sub>5</sub> is selected from the group consisting of:

$$-N - C(R_6) - N - S(O)_2 - V - N - (CH_2)_a A - (CH_2)_b A A$$

 $R_6$  is selected from the group consisting of =O and =S;

R<sub>7</sub> is C<sub>2-7</sub> alkylene;

 $R_8$  is selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{2-10}$  alkenyl,  $C_{1-10}$  alkylenyl, and aryl- $C_{1-10}$  alkylenyl;

R<sub>9</sub> is selected from the group consisting of hydrogen and alkyl;

 $R_{10}$  is  $C_{3-8}$  alkylene;

 $R_{11}$  is  $C_{1-6}$  alkylene or  $C_{2-6}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

 $R_{12}$  is selected from the group consisting of a bond,  $C_{1-5}$  alkylene, and  $C_{2-5}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R<sub>13</sub> is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups;

A is selected from the group consisting of  $-CH_2$ -, -O-, -C(O)-,  $-S(O)_{0-2}$ -, and

## $-N(R_4)$ -;

A' is selected from the group consisting of -O-, -S(O) $_{0-2}$ -, -N(-Q-R<sub>4</sub>)-, and -CH<sub>2</sub>-;

Q is selected from the group consisting of a bond,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-S(O)_2$ -,

 $-C(R_6)-N(R_8)-W-$ ,  $-S(O)_2-N(R_8)-$ ,  $-C(R_6)-O-$ , and  $-C(R_6)-N(OR_9)-$ ;

V is selected from the group consisting of  $-C(R_6)$ -,  $-O-C(R_6)$ -,  $-N(R_8)-C(R_6)$ -, and  $-S(O)_2$ -;

W is selected from the group consisting of a bond, -C(O)-, and  $-S(O)_2$ -; and a and b are independently integers from 1 to 6 with the proviso that a + b is  $\leq 7$ ; or a pharmaceutically acceptable salt thereof.

## 8. (original) A compound of the Formula IVa:

IVa

#### wherein:

X is  $C_{1-10}$  alkylene or  $C_{2-10}$  alkenylene;

R is selected from the group consisting of:

halogen,

hydroxy,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

 $-N(R_9)_2;$ 

n is an integer from 0 to 4;

 $R_1$  is selected from the group consisting of:

 $-R_4$ ,

```
-X'-R_4
                 -X'-Y-R<sub>4</sub>,
                 -X'-Y-X'-Y-R<sub>4</sub>,
                 -X'-R_5,
                -X"-O-NH-Y'-R<sub>1</sub>', and
                 -X"-O-N=C(R_1')(R_1");
        R<sub>2</sub>, R", R<sub>1</sub>', and R<sub>1</sub>" are independently selected from the group consisting of:
                 hydrogen,
                 alkyl,
                 alkenyl,
                 aryl,
                 arylalkylenyl,
                 heteroaryl,
                 heteroarylalkylenyl,
                 heterocyclyl,
                 heterocyclylalkylenyl, and
                 alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or
heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting
of:
                         hydroxy,
                         alkyl,
                         haloalkyl,
                         hydroxyalkyl,
                         alkoxy,
                         dialkylamino,
                         -S(O)_{0-2}-alkyl,
                         -S(O)_{0-2}-aryl,
                         -NH-S(O)<sub>2</sub>-alkyl,
                         -NH-S(O)_2-aryl,
                         haloalkoxy,
                         halogen,
```

cyano,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
-C(O)-N(R<sub>8</sub>)<sub>2</sub>,
-N(R<sub>8</sub>)-C(O)-alkyl,
-O-(CO)-alkyl, and
-C(O)-alkyl;

or R<sub>2</sub> and R" and/or R<sub>1</sub>' and R<sub>1</sub>" can join together to form a ring system selected from the group consisting of:

$$= \begin{pmatrix} R_{11} \\ A' \\ R_{11} \end{pmatrix}$$
 wherein

wherein the total number of atoms in the ring is 4 to 9, and

$$= \begin{pmatrix} R_{11} \\ R_{12} \end{pmatrix} \begin{pmatrix} R_c \\ R_d \end{pmatrix}$$

wherein the total number of atoms in the ring is 4 to 9;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated by arylene, heteroarylene or heterocyclylene and optionally interrupted by one or more -O- groups;

X" is -CH(R<sub>13</sub>)-alkylene- or -CH(R<sub>13</sub>)-alkenylene-;

Y is selected from the group consisting of:

$$-S(O)_{0-2}$$
-,

$$-S(O)_2-N(R_8)-,$$

$$-C(R_6)-,$$

$$-C(R_6)-O-,$$

$$-O-C(R_6)-$$
,

- -O-C(O)-O-,
- $-N(R_8)-Q-,$
- $-C(R_6)-N(R_8)-,$
- $-O-C(R_6)-N(R_8)-,$
- $-C(R_6)-N(OR_9)-,$

 $-N-C(R_6)-N-W-$ 

$$-N-R_7-N-W-$$

$$-V-N$$
, and

$$R_{10}$$
 $N-C(R_6)-N$ 
 $R_{10}$ 

Y' is selected from the group consisting of:

- a bond,
- -C(O)-,
- -C(S)-,
- $-S(O)_2-$ ,
- $-S(O)_2-N(R_8)-,$

$$- S(O)_2 - N R_{10}$$

- -C(O)-O-,
- -C(O)-N(R<sub>8</sub>)-,
- $-C(S)-N(R_8)-,$
- $-C(O)-N(R_8)-S(O)_2-$ ,

 $R_c$  and  $R_d$  are independently selected from the group consisting of hydrogen, halogen, hydroxy, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and  $-N(R_9)_2$ ; or  $R_c$  and  $R_d$  can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

R<sub>4</sub> is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, alkylarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroarylalkylenyl, heteroarylalkylenyl, heteroarylalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R<sub>5</sub> is selected from the group consisting of:

$$-N - C(R_{6}) - N - S(O)_{2} - V - N - (CH_{2})_{a} A + R_{10} - (CH_{2})_{b} A, and$$

$$-N - C(R_{6}) - N - C(R_{6}) - N - (CH_{2})_{b} A + R_{10} - (CH_{2})_{b} A + R_{10}$$

 $R_6$  is selected from the group consisting of =O and =S;

 $R_7$  is  $C_{2-7}$  alkylene;

 $R_8$  is selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{2-10}$  alkenyl,  $C_{1-10}$  alkylenyl, and aryl- $C_{1-10}$  alkylenyl;

R<sub>9</sub> is selected from the group consisting of hydrogen and alkyl;

R<sub>10</sub> is C<sub>3-8</sub> alkylene;

 $R_{11}$  is  $C_{1-6}$  alkylene or  $C_{2-6}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

 $R_{12}$  is selected from the group consisting of a bond,  $C_{1-5}$  alkylene, and  $C_{2-5}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R<sub>13</sub> is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups;

A is selected from the group consisting of  $-CH_2$ -, -O-, -C(O)-,  $-S(O)_{0-2}$ -, and  $-N(R_4)$ -;

A' is selected from the group consisting of -O-,  $-S(O)_{0-2}$ -,  $-N(-Q-R_4)$ -, and  $-CH_2$ -;

Q is selected from the group consisting of a bond,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-S(O)_2$ -,  $-C(R_6)$ -N(R<sub>8</sub>)-W-,  $-S(O)_2$ -N(R<sub>8</sub>)-,  $-C(R_6)$ -O-, and  $-C(R_6)$ -N(OR<sub>9</sub>)-;

V is selected from the group consisting of  $-C(R_6)$ -,  $-O-C(R_6)$ -,  $-N(R_8)-C(R_6)$ -, and  $-S(O)_2$ -;

W is selected from the group consisting of a bond, -C(O)-, and  $-S(O)_2$ -; and a and b are independently integers from 1 to 6 with the proviso that a + b is  $\leq 7$ ; or a pharmaceutically acceptable salt thereof.

9. (currently amended) The compound of claim 2 wherein the A-compound is of the Formula V:

wherein:

X is  $C_{1-10}$  alkylene or  $C_{2-10}$  alkenylene;

R is selected from the group consisting of:

halogen,

hydroxy,

```
alkyl,
                 alkenyl,
                 haloalkyl,
                 alkoxy,
                 alkylthio, and
                 -N(R_9)_2;
        R_1 is selected from the group consisting of:
                 -R_4
                 -X'-R_4
                 -X'-Y-R_4
                 -X'-Y-X'-Y-R_4
                 -X'-R_5
                 -X"-O-NR<sub>1a</sub>-Y'-R<sub>1b</sub>, and
                 -X''-O-N=C(R_1')(R_1'');
        R<sub>2</sub>, R", R<sub>1a</sub>, R<sub>1b</sub>, R<sub>1</sub>', and R<sub>1</sub>" are independently selected from the group consisting of:
                 hydrogen,
                 alkyl,
                 alkenyl,
                 aryl,
                 arylalkylenyl,
                 heteroaryl,
                 heteroarylalkylenyl,
                 heterocyclyl,
                 heterocyclylalkylenyl, and
                 alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or
heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting
of:
                         hydroxy,
                         alkyl,
                         haloalkyl,
                         hydroxyalkyl,
```

amino,
dialkylamino,
-S(O)<sub>0-2</sub>-alkyl,
-S(O)<sub>0-2</sub>-aryl,

alkoxy,

-NH-S(O) $_2$ -alkyl,

 $-NH-S(O)_2$ -aryl,

haloalkoxy,

halogen,

cyano,

nitro,

aryl,

heteroaryl,

heterocyclyl,

aryloxy,

arylalkyleneoxy,

-C(O)-O-alkyl,

 $-C(O)-N(R_8)_2$ ,

 $-N(R_8)-C(O)$ -alkyl,

-O-(CO)-alkyl, and

-C(O)-alkyl;

or R<sub>2</sub> and R" and/or R<sub>1</sub>' and R<sub>1</sub>" can join together to form a ring system selected from the group consisting of:

= (R<sub>11</sub>)

wherein the total number of atoms in the ring is 4 to 9, and

=  $\begin{pmatrix}
R_{11} \\
R_{12}
\end{pmatrix}$   $\begin{pmatrix}
R_{c} \\
R_{d}
\end{pmatrix}$ 

R<sub>d</sub> wherein the total number of atoms in the ring is 4 to 9;

or R<sub>1a</sub> and R<sub>1b</sub> together with the nitrogen atom and Y' to which they are bonded can join to form a ring selected from the group consisting of:

$$-N-C(R_6) \qquad -N-S(O)_2$$

$$\binom{R_7}{}_{and} \qquad and \qquad \binom{R_7}{}_{;}$$

R<sub>3</sub> is selected from the group consisting of:

-Z-X'-Y-X'-Y- $R_4$ , and

 $-Z-X'-R_5$ ;

p is an integer from 0 to 3;

m is 0 or 1, with the proviso that when m is 1, p is 0 or 1;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated by arylene, heteroarylene or heterocyclylene and optionally interrupted by one or more -O- groups;

X" is selected from the group consisting of –CH(R<sub>13</sub>)-alkylene- and –CH(R<sub>13</sub>)-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$$-S(O)_{0-2}$$
-,

$$-S(O)_2-N(R_8)-$$
,

$$-C(R_6)-,$$

$$-C(R_6)-O-$$
,

$$-O-C(R_6)-$$
,

$$-N(R_8)-Q-,$$

$$-C(R_6)-N(R_8)-$$
,

$$-O-C(R_6)-N(R_8)-$$
,

$$-C(R_6)-N(OR_9)-$$

$$\left(\begin{array}{c} N-Q- \\ R_{10} \end{array}\right)$$

$$-N-C(R_6)-N-W R_7$$
,
 $-N-R_7-N-Q R_7$ 
,
 $-V-N$ 
, and
 $-V-N$ 
 $R_{10}$ 
,  $R_{10}$ 

Y' is selected from the group consisting of:

- a bond,
- -C(O)-,
- -C(S)-,
- $-S(O)_2-,$
- $-S(O)_2-N(R_8)-,$

$$- S(O)_2 - N R_{10}$$

- -C(O)-O-,
- -C(O)-N(R<sub>8</sub>)-,
- $-C(S)-N(R_8)-,$
- -C(O)-N(R<sub>8</sub>)-S(O)<sub>2</sub>-,
- -C(O)-N(R<sub>8</sub>)-C(O)-,
- $-C(S)-N(R_8)-C(O)-,$

$$-C(O) = N \longrightarrow R_{10}$$

- -C(O)-C(O)-,
- -C(O)-C(O)-O-, and
- $-C(=NH)-N(R_8)-;$

Z is a bond or -O-;

 $R_c$  and  $R_d$  are independently selected from the group consisting of hydrogen, halogen, hydroxy, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and  $-N(R_9)_2$ ; or  $R_c$  and  $R_d$  can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

R<sub>4</sub> is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R<sub>5</sub> is selected from the group consisting of:

$$-N-C(R_{6}) -N-S(O)_{2} -V-N -N -C(R_{2})_{a} -N-C(R_{6}) -N -C(R_{6}) -N -C(R_{6}) -N -C(R_{2})_{b} -N -C$$

 $R_6$  is selected from the group consisting of =O and =S;

R<sub>7</sub> is C<sub>2-7</sub> alkylene;

 $R_8$  is selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{2-10}$  alkenyl,  $C_{1-10}$  alkylenyl, and aryl- $C_{1-10}$  alkylenyl;

R<sub>9</sub> is selected from the group consisting of hydrogen and alkyl;

 $R_{10}$  is  $C_{3-8}$  alkylene;

 $R_{11}$  is  $C_{1-6}$  alkylene or  $C_{2-6}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

 $R_{12}$  is selected from the group consisting of a bond,  $C_{1-5}$  alkylene, and  $C_{2-5}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R<sub>13</sub> is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups;

A is selected from the group consisting of  $-CH_2$ -, -O-, -C(O)-,  $-S(O)_{0-2}$ -, and  $-N(R_4)$ -;

A' is selected from the group consisting of -O-, -S(O) $_{0-2}$ -, -N(-Q-R<sub>4</sub>)-, and -CH<sub>2</sub>-;

Q is selected from the group consisting of a bond,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-S(O)_2$ -,

 $-C(R_6)-N(R_8)-W-$ ,  $-S(O)_2-N(R_8)-$ ,  $-C(R_6)-O-$ , and  $-C(R_6)-N(OR_9)-$ ;

V is selected from the group consisting of  $-C(R_6)$ -,  $-O-C(R_6)$ -,  $-N(R_8)-C(R_6)$ -, and  $-S(O)_2$ -;

W is selected from the group consisting of a bond, -C(O)-, and  $-S(O)_2$ -; and a and b are independently integers from 1 to 6 with the proviso that a + b is  $\leq 7$ ; or a pharmaceutically acceptable salt thereof.

# 10. (currently amended) The compound of claim 2 wherein the A-compound is of the Formula VI:

$$R_{B2} \xrightarrow{NH_2} N X O - N R''$$

$$R_{A2} \xrightarrow{R_1} R_2$$

$$VI$$

wherein:

X is  $C_{1-10}$  alkylene or  $C_{2-10}$  alkenylene;

R<sub>A2</sub> and R<sub>B2</sub> are each independently selected from the group consisting of:

hydrogen,

halogen,

alkyl,

alkenyl,

alkoxy,

alkylthio, and

 $-N(R_9)_2$ ;

 $R_1$  is selected from the group consisting of:

 $-R_4$ ,

```
-X'-R_4,
                 -X'-Y-R<sub>4</sub>,
                 -X'-Y-X'-Y-R<sub>4</sub>,
                 -X'-R_5,
                 -X''-O-NR_{1a}-Y'-R_{1b}, and
                 -X''-O-N=C(R_1')(R_1'');
        R<sub>2</sub>, R", R<sub>1a</sub>, R<sub>1b</sub>, R<sub>1</sub>', and R<sub>1</sub>" are independently selected from the group consisting of:
                 hydrogen,
                 alkyl,
                 alkenyl,
                 aryl,
                 arylalkylenyl,
                 heteroaryl,
                 heteroarylalkylenyl,
                 heterocyclyl,
                 heterocyclylalkylenyl, and
                 alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or
heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting
                         hydroxy,
                         alkyl,
                          haloalkyl,
                          hydroxyalkyl,
                         alkoxy,
                          amino,
                          dialkylamino,
                          -S(O)_{0-2}-alkyl,
                          -S(O)_{0-2}-aryl,
                          -NH-S(O)_2-alkyl,
                          -NH-S(O)_2-aryl,
                          haloalkoxy,
```

of:

halogen,
cyano,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
-C(O)-N(R<sub>8</sub>)<sub>2</sub>,
-N(R<sub>8</sub>)-C(O)-alkyl,
-O-(CO)-alkyl, and

-C(O)-alkyl;

or R<sub>2</sub> and R" and/or R<sub>1</sub>' and R<sub>1</sub>" can join together to form a ring system selected from the group consisting of:

$$R_{11}$$
 A' wherein the total number of atoms in the ring is 4 to 9, and

$$= \begin{pmatrix} R_{11} \\ R_{12} \end{pmatrix} \begin{pmatrix} R_c \\ R_d \end{pmatrix}$$

wherein the total number of atoms in the ring is 4 to 9;

or R<sub>1a</sub> and R<sub>1b</sub> together with the nitrogen atom and Y' to which they are bonded can join to form a ring selected from the group consisting of:

$$-N-C(R_6)$$
  $-N-S(O)_2$   
 $R_7$  and  $R_7$ ;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated by arylene, heteroarylene or heterocyclylene and optionally interrupted by one or more -O- groups;

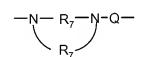
X" is selected from the group consisting of -CH(R<sub>13</sub>)-alkylene- and

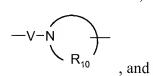
 $-CH(R_{13})$ -alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

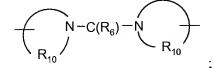
Y is selected from the group consisting of:

- $-S(O)_{0-2}$ -,
- $-S(O)_2-N(R_8)-,$
- $-C(R_6)-,$
- $-C(R_6)-O-,$
- $-O-C(R_6)-$ ,
- -O-C(O)-O-,
- $-N(R_8)-Q-,$
- $-C(R_6)-N(R_8)-,$
- $-O-C(R_6)-N(R_8)-,$
- $-C(R_6)-N(OR_9)-,$

-N-C(R<sub>6</sub>)-N-W-







Y' is selected from the group consisting of:

- a bond,
- -C(O)-,
- -C(S)-,
- -S(O)<sub>2</sub>-,

$$-S(O)_{2}-N(R_{8})-,\\ -S(O)_{2}-N(R_{8})-,\\ -C(O)-O-,\\ -C(O)-N(R_{8})-,\\ -C(S)-N(R_{8})-,\\ -C(O)-N(R_{8})-S(O)_{2}-,\\ -C(O)-N(R_{8})-C(O)-,\\ -C(S)-N(R_{8})-C(O)-,\\ -C(O)-C(O)-,\\ -C(O)-C(O)-,\\ and\\ -C(=NH)-N(R_{8})-;$$

 $R_c$  and  $R_d$  are independently selected from the group consisting of hydrogen, halogen, hydroxy, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and  $-N(R_9)_2$ ; or  $R_c$  and  $R_d$  can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

R<sub>4</sub> is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroarylalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R<sub>5</sub> is selected from the group consisting of:

$$-N - C(R_{6}) - N - S(O)_{2} - V - N - (CH_{2})_{a} A - (CH_{2})_{b} A + (CH_{2})_{b} A - (CH_{2})_{b} A -$$

 $R_6$  is selected from the group consisting of =O and =S;

 $R_7$  is  $C_{2-7}$  alkylene;

 $R_8$  is selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{2-10}$  alkenyl,  $C_{1-10}$  alkylenyl, and aryl- $C_{1-10}$  alkylenyl;

R<sub>9</sub> is selected from the group consisting of hydrogen and alkyl;

 $R_{10}$  is  $C_{3-8}$  alkylene;

 $R_{11}$  is  $C_{1-6}$  alkylene or  $C_{2-6}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

 $R_{12}$  is selected from the group consisting of a bond,  $C_{1-5}$  alkylene, and  $C_{2-5}$  alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R<sub>13</sub> is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups;

A is selected from the group consisting of  $-CH_2$ -, -O-, -C(O)-,  $-S(O)_{0-2}$ -, and  $-N(R_4)$ -;

A' is selected from the group consisting of -O-, -S(O)<sub>0-2</sub>-, -N(-Q-R<sub>4</sub>)-, and -CH<sub>2</sub>-;

Q is selected from the group consisting of a bond,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-C(R_6)$ -,  $-S(O)_2$ -,

 $-C(R_6)-N(R_8)-W-$ ,  $-S(O)_2-N(R_8)-$ ,  $-C(R_6)-O-$ , and  $-C(R_6)-N(OR_9)-$ ;

V is selected from the group consisting of  $-C(R_6)$ -,  $-O-C(R_6)$ -,  $-N(R_8)-C(R_6)$ -, and  $-S(O)_2$ -;

W is selected from the group consisting of a bond, -C(O)-, and  $-S(O)_2$ -; and a and b are independently integers from 1 to 6 with the proviso that a + b is  $\leq 7$ ; or a pharmaceutically acceptable salt thereof.

## 11-15 (canceled)

16. (currently amended) The compound or salt of any one of claims 3 through 8, or claim 15 as dependent on claim 4 or claim 5, claim 7 wherein n is 0.

17. (currently amended) The compound or salt of any one of claims 4 or 5, or claim 16 as dependent on any of claims 4, 5, or 15 claim 4 wherein n and m are 0.

- 18. (canceled)
- 19. (currently amended) The compound or salt of claim 9 or claim 15 as dependent on claim 9 or claim 14 wherein m and p are 0.
- 20. (original) The compound or salt of claim 10 wherein  $R_{A2}$  and  $R_{B2}$  are each methyl.
- 21-22 (canceled)
- 23. (currently amended) The compound or salt of any one of claims 2, 4, 5, 7 through 15, claims 17 through 20, or claim 16 as dependent on any one of claims 4, 5, 7, 8, or 15, claim 2 wherein  $R_1$  is selected from the group consisting of alkyl, arylalkylenyl, aryloxyalkylenyl, hydroxyalkyl, alkylsulfonylalkylenyl, -X'-Y-R<sub>4</sub>, and -X'-R<sub>5</sub>; wherein X' is alkylene; Y is -N(R<sub>8</sub>)-C(O)-, -N(R<sub>8</sub>)-S(O)<sub>2</sub>-, -N(R<sub>8</sub>)-S(O)<sub>2</sub>-N(R<sub>8</sub>)-, -N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-, -N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-,

$$-V-N$$
 , or  $R_{10}$  , or  $R_{10}$  ,  $R_{4}$  is hydrogen, alkyl, alkenyl, aryl, or heteroaryl,

wherein alkyl and alkenyl are optionally substituted by aryl or aryloxy and wherein aryl is optionally substituted by one or more substituents selected from the group consisting of alkyl, alkoxy, cyano, and halogen; and  $R_5$  is

$$-N-C(R_6)$$
  $-N-S(O)_2$   $-N(R_8)-C(O)-N$   $A$   $(CH_2)_b$   $A$ 

24. (original) The compound or salt of claim 23 wherein R<sub>1</sub> is 2-methylpropyl, 2-hydroxy-2-methylpropyl, or -X'-Y-R<sub>4</sub>; X' is ethylene, propylene, or butylene; Y is -NH-C(O)-, -NH-S(O)<sub>2</sub>-, -NH-S(O)<sub>2</sub>-N(R<sub>8</sub>)-, -NH-C(O)-N(R<sub>8</sub>)-, -NH-C(O)-NH-C(O)-, or

$$-NH-C(O)-N$$

; and R<sub>8</sub> is hydrogen or methyl.

- 25. (canceled)
- 26. (currently amended) The compound or salt of any one of claims 1 through 10, 14 through 22, 24, or 25, or claim 23 as dependent on any one of claims 2, 4, 5, 7 through 10 or 14 through 20, claim 2 wherein at least one of R" or R<sub>2</sub> is selected from the group consisting of alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, and heterocyclylalkylenyl are optionally substituted.
- 27-31 (canceled)
- 32. (currently amended) The compound or salt of any one of claims 1 through 10, 14 through 22, or 24, or claim 23 as dependent on any one of claims 2, 4, 5, 7 through 10 or 14 through 20, claim 2 wherein  $R_2$  and R'' are independently  $C_{1-10}$  alkyl.
- 33. (original) The compound or salt of claim 32 wherein  $R_2$  and R'' are each methyl.
- 34-35 (canceled)
- 36. (currently amended) The compound or salt of claim  $\frac{35-2}{2}$  wherein  $\frac{R_2}{2}$  and  $\frac{R''}{2}$  join together to form the ring system is

$$= \begin{pmatrix} R_{11} \\ A' \\ R_{11} \end{pmatrix}$$

 $R_{11}$ , wherein  $R_{11}$  is  $C_{1-2}$  alkylene; A' is -CH<sub>2</sub>-, -O-, or -N(-Q-R<sub>4</sub>)-; Q is a bond or -C(O)-; and  $R_4$  is alkyl or arylalkylenyl.

37. (currently amended) The compound or salt of any one of claims 1 through 36 claim 2 wherein X is  $C_{1-4}$  alkylene.

38. (original) The compound or salt of claim 37 wherein X is methylene.

39. (currently amended) The compound or salt of any one of claims 2, 4, 5, 7 through 10, 14, 15, or 17 through 20, or claim 16 as dependent on any one of claims 4, 5, 7, 8, or 15, claim 2 wherein X is  $C_{1-4}$  alkylene;  $R_2$  is  $C_{1-4}$  alkyl; R'' is hydrogen or  $C_{1-4}$  alkyl; and  $R_1$  is  $C_{1-6}$  alkyl or hydroxy- $C_{1-6}$  alkyl; or X is  $C_{1-4}$  alkylene; R'' is  $C_{1-4}$  alkyl;  $R_2$  is hydrogen or  $C_{1-4}$  alkyl; and  $R_1$  is  $C_{1-6}$  alkyl or hydroxy- $C_{1-6}$  alkyl.

40-41 (canceled)

- 42. (currently amended) The compound or salt of any one of claims 39, 40, or 41claim 2 wherein X is methylene; R" and R<sub>2</sub> are methyl; and R<sub>1</sub> is 2-methylpropyl or 2-hydroxy-2-methylpropyl.
- 43. (currently amended) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of any one of claims 1 through 42 claim 2 in combination with a pharmaceutically acceptable carrier.
- 44. (currently amended) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of any one of claims 1 through 42claim 2 to the animal.
- 45. (currently amended) A method of treating a viral disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of any one of claims 1 through 42claim 2 to the animal.
- 46. (currently amended) A method of treating a neoplastic disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of any one of claims 1 through 42 claim 2 to the animal.

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## 47. (canceled)

48. (new) The compound or salt of claim 4 wherein R<sub>1</sub> is selected from the group consisting of alkyl, arylalkylenyl, aryloxyalkylenyl, hydroxyalkyl, alkylsulfonylalkylenyl, -X'-Y-R4, and -X'-R<sub>5</sub>; wherein X' is alkylene; Y is -N(R<sub>8</sub>)-C(O)-, -N(R<sub>8</sub>)-S(O)<sub>2</sub>-,

 $-N(R_8)-S(O)_2-N(R_8)-$ ,  $-N(R_8)-C(O)-N(R_8)-$ ,  $-N(R_8)-C(O)-N(R_8)-C(O)-$ ,

$$-V-N$$
 $R_{10}$ 
 $R_{10}$ 
 $R_{10}$ 

-V-N  $R_{10}$   $R_{$ wherein alkyl and alkenyl are optionally substituted by aryl or aryloxy and wherein aryl is optionally substituted by one or more substituents selected from the group consisting of alkyl, alkoxy, cyano, and halogen; and R<sub>5</sub> is

$$-N-C(R_6)$$
  $-N-S(O)_2$   $-N(R_8)-C(O)-N$   $A$   $(CH_2)_b$   $A$ 

49. (new) The compound or salt of claim 48 wherein R<sub>1</sub> is 2-methylpropyl, 2-hydroxy-2methylpropyl, or -X'-Y-R<sub>4</sub>; X' is ethylene, propylene, or butylene; Y is -NH-C(O)-, -NH-S(O)<sub>2</sub>-,  $-NH-S(O)_2-N(R_8)-$ ,  $-NH-C(O)-N(R_8)-$ , -NH-C(O)-NH-C(O)-, or

– NH– C(O)–N ; and 
$$R_8$$
 is hydrogen or methyl.

- 50. (new) The compound or salt of claim 4 wherein at least one of R" or R<sub>2</sub> is selected from the group consisting of alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, and heterocyclylalkylenyl, wherein the alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, and heterocyclylalkylenyl are optionally substituted.
- 51. (new) The compound or salt of claim 4 wherein R<sub>2</sub> and R" are independently  $C_{1-10}$  alkyl.

52. (new) The compound or salt of claim 51 wherein R<sub>2</sub> and R" are each methyl.

- 53. (new) The compound or salt of claim 4 wherein R<sub>2</sub> and R" join together to form the ring system
- $R_{11}$ , wherein  $R_{11}$  is  $C_{1-2}$  alkylene; A' is -CH<sub>2</sub>-, -O-, or -N(-Q-R<sub>4</sub>)-; Q is a bond or -C(O)-; and  $R_4$  is alkyl or arylalkylenyl.
- 54. (new) The compound or salt of claim 4 wherein X is  $C_{1-4}$  alkylene.
- 55. (new) The compound or salt of claim 54 wherein X is methylene.
- 56. (new) The compound or salt of claim 4 wherein X is  $C_{1-4}$  alkylene;  $R_2$  is  $C_{1-4}$  alkyl; R" is hydrogen or  $C_{1-4}$  alkyl; and  $R_1$  is  $C_{1-6}$  alkyl or hydroxy- $C_{1-6}$  alkyl; or X is  $C_{1-4}$  alkylene; R" is  $C_{1-4}$  alkyl;  $R_2$  is hydrogen or  $C_{1-4}$  alkyl; and  $R_1$  is  $C_{1-6}$  alkyl or hydroxy- $C_{1-6}$  alkyl.
- 57. (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 4 in combination with a pharmaceutically acceptable carrier.
- 58. (new) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 4 to the animal.
- 59. (new) The compound or salt of claim 7 wherein  $R_1$  is selected from the group consisting of alkyl, arylalkylenyl, aryloxyalkylenyl, hydroxyalkyl, alkylsulfonylalkylenyl, -X'-Y-R<sub>4</sub>, and -X'-R<sub>5</sub>; wherein X' is alkylene; Y is -N(R<sub>8</sub>)-C(O)-, -N(R<sub>8</sub>)-S(O)<sub>2</sub>-, -N(R<sub>8</sub>)-S(O)<sub>2</sub>-N(R<sub>8</sub>)-, -N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(

$$-V-N$$
 $R_{10}$ 
 $R_{10}$ 
 $R_{10}$ 

; R<sub>4</sub> is hydrogen, alkyl, alkenyl, aryl, or heteroaryl,

wherein alkyl and alkenyl are optionally substituted by aryl or aryloxy and wherein aryl is optionally substituted by one or more substituents selected from the group consisting of alkyl, alkoxy, cyano, and halogen; and R<sub>5</sub> is

$$-N-C(R_6)$$
  $-N-S(O)_2$   $-N(R_8)-C(O)-N$   $A$   $(CH_2)_b$   $A$ 

- 60. (new) The compound or salt of claim 7 wherein R<sub>2</sub> and R" are each methyl.
- 61. (new) The compound or salt of claim 7 wherein R<sub>2</sub> and R" join together to form the ring system

$$R_{11}$$
, wherein  $R_{11}$  is  $C_{1-2}$  alkylene; A' is -CH<sub>2</sub>-, -O-, or -N(-Q-R<sub>4</sub>)-; Q is a bond or -C(O)-; and  $R_4$  is alkyl or arylalkylenyl.

- 62. (new) The compound or salt of claim 7 wherein X is methylene.
- 63. (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 7 in combination with a pharmaceutically acceptable carrier.
- 64. (new) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 7 to the animal.
- 65. (new) The compound or salt of claim 9 wherein  $R_1$  is selected from the group consisting of alkyl, arylalkylenyl, aryloxyalkylenyl, hydroxyalkyl, alkylsulfonylalkylenyl, -X'-Y-R<sub>4</sub>, and -X'-R<sub>5</sub>; wherein X' is alkylene; Y is -N(R<sub>8</sub>)-C(O)-, -N(R<sub>8</sub>)-S(O)<sub>2</sub>-, -N(R<sub>8</sub>)-S(O)<sub>2</sub>-N(R<sub>8</sub>)-, -N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(O)-N(R<sub>8</sub>)-C(

$$-V-N$$
, or  $R_{10}$ , or  $R_{10}$ , or  $R_{10}$ ;  $R_{4}$  is hydrogen, alkyl, alkenyl, aryl, or heteroaryl,

wherein alkyl and alkenyl are optionally substituted by aryl or aryloxy and wherein aryl is optionally substituted by one or more substituents selected from the group consisting of alkyl, alkoxy, cyano, and halogen; and R<sub>5</sub> is

$$-N-C(R_6) -N-S(O)_2 -N(R_8)-C(O)-N A (CH_2)_b$$

$$R_7 , or$$

66. (new) The compound or salt of claim 65 wherein  $R_1$  is 2-methylpropyl, 2-hydroxy-2-methylpropyl, or  $-X'-Y-R_4$ ; X' is ethylene, propylene, or butylene; Y is -NH-C(O)-,  $-NH-S(O)_2$ -,  $-NH-S(O)_2-N(R_8)$ -,  $-NH-C(O)-N(R_8)$ -, -NH-C(O)-NH-C(O)-, or

$$-NH-C(O)-N$$
 ; and  $R_8$  is hydrogen or methyl.

- 67. (new) The compound or salt of claim 9 wherein at least one of R" or R<sub>2</sub> is selected from the group consisting of alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, and heterocyclylalkylenyl, wherein the alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, and heterocyclylalkylenyl are optionally substituted.
- 68. (new) The compound or salt of claim 9 wherein R<sub>2</sub> and R" are each methyl.
- 69. (new) The compound or salt of claim 9 wherein R<sub>2</sub> and R" join together to form the ring system

$$= \begin{pmatrix} R_{11} \\ A' \\ R_{11} \end{pmatrix}, \text{ wherein } R_{11} \text{ is } C_{1\text{-}2} \text{ alkylene; A' is -CH}_2\text{-, -O-, or -N(-Q-R_4)-; Q is a bond or -C(O)-; and } R_4 \text{ is alkyl or arylalkylenyl.}$$

70. (new) The compound or salt of claim 9 wherein X is  $C_{1-4}$  alkylene.

- 71. (new) The compound or salt of claim 70 wherein X is methylene.
- 72. (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 9 in combination with a pharmaceutically acceptable carrier.
- 73. (new) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 9 to the animal.
- 74. (new) The compound or salt of claim 10 wherein R<sub>1</sub> is selected from the group consisting of alkyl, arylalkylenyl, aryloxyalkylenyl, hydroxyalkyl, alkylsulfonylalkylenyl, -X'-Y-R<sub>4</sub>, and
- -X'-R<sub>5</sub>; wherein X' is alkylene; Y is -N(R<sub>8</sub>)-C(O)-, -N(R<sub>8</sub>)-S(O)<sub>2</sub>-,
- $-N(R_8)-S(O)_2-N(R_8)-$ ,  $-N(R_8)-C(O)-N(R_8)-$ ,  $-N(R_8)-C(O)-N(R_8)-C(O)-$ ,

$$-V-N \longrightarrow R_{10} \longrightarrow R_{$$

wherein alkyl and alkenyl are optionally substituted by aryl or aryloxy and wherein aryl is optionally substituted by one or more substituents selected from the group consisting of alkyl, alkoxy, cyano, and halogen; and R<sub>5</sub> is

- 75. (new) The compound or salt of claim 10 wherein R<sub>2</sub> and R" are each methyl.
- 76. (new) The compound or salt of claim 10 wherein R<sub>2</sub> and R" join together to form the ring system



wherein  $R_{11}$  is  $C_{1-2}$  alkylene; A' is -CH<sub>2</sub>-, -O-, or -N(-Q-R<sub>4</sub>)-; Q is a bond or

-C(O)-; and  $R_4$  is alkyl or arylalkylenyl.

- 77. (new) The compound or salt of claim 10 wherein X is methylene.
- 78. (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 10 in combination with a pharmaceutically acceptable carrier.
- 79. (new) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 10 to the animal.